SPORT/CHALLENGE LANE CONDITION STUDY

Starting with the 2015-2016 season, all leagues that used a condition other than a Standard "house" lane conditions should have designated the league as using a Sport/Challenge lane condition. Standard/House leagues typically have a ratio of 8:1 oil dispersion, while more challenging leagues would use oil patterns typically 4:1 or lower.

After a season and a half of research, we discovered there may be a place for a new designation of leagues which would provide a fairer representation of league averages for USBC members.

Researched leagues

After the completion of the 2015-2016 season, USBC started to hear about leagues that were not competing on what would be considered a Standard/House condition. Despite an announcement to leagues, centers, associations, and members, many leagues were not self-reporting as Sport/Challenge leagues, though the league was not being conducted on a house shot. This led to bowlers utilizing an average that gave them advantage over other bowlers, especially in tournaments.

Some leagues were found through online forums, league promotional flyers, private Facebook messages, or phone calls to report bowler leagues.

In total, 38 leagues have been evaluated for average discrepancies and 16 of these have been re-classified to Sport. Of the other 22, some were inconclusive due to not enough of the bowlers having other averages, or the average differences did not exceed 10 pins.

Methodology

After a league was reported or discovered, the USBC Membership team listed all members of the league with an average of 21 or more games. Then, each member was cross-checked against their highest average for the same season in a standard league, with 21 or more games. The difference between the averages served as the metric to determine if the league should be labeled as Sport/Challenge and, therefore, member averages be adjusted to the Sport conversion.

Example

The chart shows samples of leagues checked. It shows the average of the league and the Standard average of bowlers in the league. Leagues in light blue were re-rated Sport; green ones were left as Standard.

League	League Average	Avg. in Standard league	Difference
League 1	187.015	211.621	24.606
League 2	188.35	196.03	7.682
League 3	189.89	210.00	20.111
League 4	166.97	182.49	16.189
League 5	162.39	187.61	25.214
League 6	190.779	207.324	16.544
League 7	199.317	205.048	5.73

Appeals

The conversations and emails following the re-classifications has led to learning why such a large difference exists. A few examples are:

- League bowled on Sport for the first half of the year, house shot the second half
- League was using a 5:1 oil pattern ("blue")
- The condition of the center was old wood, usually lower scoring, and bowling on a 6:1 oil pattern
- Changing patterns each month, some Sport, some Challenge, some closer to Standard

Research

The next step was to research previous league data to determine if leagues that have historically been labeled something other than Sport or Red had any identifiers that would lead us to a possible middle classification.

This chart looks at all leagues from 2013-2016 which identified themselves as Blue, and we then analyzed the other league averages that bowlers in these leagues had on a Red/House condition.

		2013	2014	2015	2016
Blue	Total Leagues	57	91	45	8
	Total Records	1217	1998	1304	143
	Blue Average	181	182	185	185
	Other Average	196	201	202	194
	Average Difference	15	19	17	9

The data shows previous Blue leagues had an average difference of between 9 and 19 pins versus Standard averages. The data for 2016 is much fewer because leagues should have been choosing House or Sport only in this year, but with the series of lane condition changes over the years, the saturation of the correct change will take a few years. It also should be noted, some of the leagues marked Blue will be analyzed, as some of them, in fact, have a dispersion of averages that more reflects a Sport condition. This will bring the overall average down slightly.

Next, we looked at leagues designated as White over the last few years. The below data indicates there is not a significant enough change in averages for us to provide another series of average adjustments.

		2013	2014	2015	2016
White	Total Leagues	165	155	109	37
	Total Records	2397	2455	1965	743
	White Average	184	183	183	183
	Other Average	187	187	187	186
	Average Difference	3	4	4	3

Conclusion

Having strictly a Sport or Standard average conversion does not allow for a true representation of averages to be given to leagues competing on something "in between" these conditions.

A new adjustment has been developed to allow for the middle average to reflect a closer representation. We now have Standard, Challenge, and Sport lane condition designations for leagues and conversion charts so averages for bowlers in Sport and Challenge leagues can be easily converted to Standard.

For the Sport to Standard conversion chart, please click **here**.

For the Challenge to Standard conversion chart, please click **here**.